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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,435

01/20/2006

Tetsuya Hayashi

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7590

03/31/2010

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EXAMINER

BOR, HELENE CATHERINE

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

03/31/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/565,435

**Applicant(s)**

HAYASHI ET AL.

**Examiner**

HELENE BOR

**Art Unit**

3768

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The rejection of Claim 1-3 & 5-20 under 35 U.S.C. 103(a) as being unpatentable over Shiki et al. (US Patent No. 7,044,913), in view of Hossack et al. (US Patent No. 6,116,244) and in view of Alexander et al. (US Patent No. 6,239,796 B1) is hereby maintained.

***Response to Arguments***

2. Applicant's arguments, see Page 11, filed 10/23/2009, with respect to the Claim Objection have been fully considered and are persuasive. The Objection of the Claims has been withdrawn.

3. Applicant's arguments filed 10/23/2009 have been fully considered but they are not persuasive. The Examiner respectfully disagrees with the Applicant's assertion that the references fail to teach displaying either or both a luminance/hue color bar based on the information of the velocity and variance of blood flow and/or a transparency color bar based on the variance. Shiki teaches displaying color bars (Col. 20, Line 25-31) based on velocity (Col. 23, Line 20-25). Shiki fails to teach transparency in the color Doppler image and the combination of velocity and variance for bar display. However, Hossack teaches transparency [opacity] in the color Doppler image (Col. 2, Line 25-35 & Col. 3, Line 33-43 & Line 25-31) based on variance (Col. 3, Line 9-31) and combination of various ultrasound parameters such as velocity and variance (Col. 2, Line 48-52 & Col. 2, Line 65 – Col. 3, Line 8) in order to emphasize the clinical areas of interest in the display (Col. 2, Line 33-35). The Examiner recognizes the intent of

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the claim amendments as a result of the Interview held on 11/14/2009. However, the Examiner contends that the claims as written still read on the prior art in the manner as discussed in the Interview and further explained in the Interview Summary mailed 11/02/2009. The Examiner understands and recognizes the differences between the prior art and the Applicant's invention. To overcome the prior rejection, the claims need to include the subject matter of how the bar selection affects the image processing beyond a mere display of the bar selection and how the bar selection results in the display of the imaged data encoded according to the particular selection bar. The current amendments, the Examiner contends, still allows the previous interpretation of selection of a bar for display purposes of the bar only is within the broadest most reasonable interpretation. Proper recitation of the bar selections affect on the image processing would overcome the prior art rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELENE BOR whose telephone number is (571)272-2947. The examiner can normally be reached on M-T 8:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. B./  
Examiner, Art Unit 3768

/Eric F Winakur/  
Primary Examiner, Art Unit 3768